Appln. Serial No.: 10/825,179 Amend. Dated August 10, 2006

Reply to Office Action of June 13, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.(canceled)

2.(currently amended) The device of elaim 1, claim 8, wherein the cold generating unit is a cold finger.

3.(currently amended) The device of claim 1, claim 8. wherein the cold generating unit is contained within a dewar flask.

4.(canceled)

5.(currently amended) The device of elaim 4, claim 8, wherein the open vessel is a microcapillary tube or microtiter plate.

6.(currently amended) The device of claim 1, wherein the compartment comprises a sealable vacuum chamber claim 8, wherein the vacuum tube is adapted to hold a plurality of micropipette microcapillary tubes therein, each tube having a volume of approximately 100 µL.

7.(canceled)

8.(original) A device for protein crystallization comprising: an open vessel for placement of a protein-containing solution;

a vacuum tube for placement of the open vessel therein:

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a vacuum pump and vacuum gage for creating and monitoring vacuum pressure within the vacuum tube:

sealing means forming a seal between the open vessel and the vacuum pump; and a cold generating unit spaced apart from and in closed fluid communication with the open vessel, the cold generating unit maintaining a temperature lower than the temperature of the open vessel.

- 9.(original) A method for forming protein crystals comprising the steps of:
- a) providing a protein-containing solution in a compartment adapted for the placement of a protein-containing solution;
- b) creating a region of reduced temperature spaced apart from and in closed fluid communication with the compartment; and
- c) drawing water vapor out of the protein-containing solution by allowing vapor flow out of the compartment toward the region of reduced temperature until a protein crystal is formed in the compartment.
- 10.(original) The method of claim 9, wherein the region of reduced temperature is created using a cold generating unit spaced apart from and in closed fluid communication with the compartment, the cold generating unit maintaining a temperature lower than the temperature of the compartment.
- 11.(original) The method of claim 9, wherein the reduced temperature is an adjustable temperature in the range of from about 20°C to about -15°C.
- 12.(original) The method of claim 11, wherein the reduced temperature is below about 0°C.
- 13.(original) The method of claim 9, wherein the step of drawing water vapor out of the protein-containing solution additionally comprises application of a vacuum to the compartment.

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14.(original) The method of claim 9, wherein the step of drawing water vapor out of the protein-containing solution is conducted at a pressure of about 26 inches of Hg.

15.(original) The method of claim 9, wherein the method is performed in a microgravity environment.